

Abstract

The invention discloses a digital adjusting method for an optical receiver module, and the method implements real-time monitor of parameters, on-line adjustment and non-linear compensation. The digital optical receiver module includes elements as follow: a voltage output circuit of optical power detection 24, a DC/DC voltage boost circuit 22 and a bias voltage adjusting unit which is consisted of an optical-electronic conversion circuit 21; a digital adjusting unit 25, an analog-digital converter (A/D converter) 26 and a memory 27. The digital adjusting unit 25, which is a D/A converter or a digital potentiometer, is used to make on-line adjustment and to implement temperature compensation and dark current compensation of the optical receiver module. The A/D converter 26 is used to monitor the optical power, the working temperature and the bias voltage of the optical detector in real time. The memory 27 is used to store parameters of the optical receiver module for comparison with a detected optical power and measured temperature etc. and for on-line interrogation.